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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/436,506	11/09/1999	THOMAS WILLIAM BISH	TU9-99-036	6740

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EXAMINER

ALI, MOHAMMAD

ART UNIT	PAPER NUMBER
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2177

DATE MAILED: 08/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/436,506

Applicant(s)

BISH ET AL.

Examiner

Mohammad Ali

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. This office action is in responsive communication filed on June 28, 2002, Paper No. 5.

Claims 1-27 are pending in this Office Action.

After a further search and a through examination of the present application, claims 1-27 are remain rejected.

Applicant's arguments filed on June 28, 2002 with respect to claims 1-27 have been fully considered but they are not deemed to be persuasive.

2. The arguments of the response are largely to the limitation of "flag for each storage devices indicating whether a previous attempt of data set from the storage devices failed,..." and Le et al. ("Le") teaches the claimed invention in view of Steven Frank et al. ("Frank")

In response to the applicant's argument, "...storage devices indicating whether a previous attempt of data set from the storage devices failed". In Le, FIG. 6 illustrates logic implemented by a requesting host that generates a request data structure 20 and attempts a recall request on a tape currently in use by the using host. Control begins at block 90 which represents the requesting host generating and initiating a recall request, including the request data structure 20. Control transfers to block 92 which represents the requesting host examining the using host info 52 in the inventory record 50 to determine whether the subject tape is currently available for this recall in the requesting host. If so, control transfers to block 93; otherwise, control transfers to block 96. Block 93 represents the requesting host determining whether the tape is in use by recall in another host. If so, then control transfers to block 94. Otherwise, if the tape is not immediately available and not in use by recall in another host, control transfers to block 104 which represents the requesting host retrying the recall request later.

If the tape is currently in use by recall at another host, then at block 94, the requesting host determines whether there is an HPR entry 54 in the inventory record 50. If so, control transfers to block 98; otherwise, control transfers to block 100. If there is no HPR entry 54, then at block 100, the

requesting host inserts the priority data of the requested recall from the priority data field 28 into the HPR entry 54 of the inventory record 50. The requesting host adds both its hostid to the HPR hostid field 60 and the priority data 28 into the HPR priority data 62 field. Control then transfers to block 102 which represents the requesting host retrying the recall request after a predetermined time. The requesting host may record the time of the failed recall request in a field (not shown) in the requesting data structure 20. If there is an HPR entry 54, then control transfers to block 98 which represents the requesting host determining whether the priority indicated in the priority data field 28 in the request data structure 20 is greater than the priority indicated in the HPR priority data field 62. If the priority of the requested recall is greater, then control transfers to block 100 et seq. to insert the hostid field 60 and the priority data 28 in the request data structure 20 into the HPR priority data field 62 in the inventory record 50. Otherwise, control transfers to block 104, which represents the requesting host attempting the recall at a later time without updating the HPR entry 54 in the inventory record 50 (col. 8 lines 18-66, Abstract).

In response to the applicant's arguments, "accessing the data set from one of a third and fourth storage devices if the data set is in one of the third and fourth,...". In Le, the present invention discloses a system for handling recall requests for data maintained in a storage device from multiple host systems. Initially, a storage device is allocated to a first host system to process recall requests in a recall queue including a plurality of recall requests. A second host recall request is initiated with a second host system to recall data from the storage device. The second host system determines whether the storage device is allocated to the first host system. If so, the second host system stores priority data in a data structure indicating a priority of the second host recall request after determining that the storage device is allocated to the first host system. The second host system retries the second host recall request at a later time. The first host system then releases the storage device before processing all the recall requests in the recall queue to make the storage device available,...at col. 2 lines 61 to col. 3 lines 27.

In response to the applicant's arguments, "selection of storing devices,...". In Frank, only the selected central processing units requesting access to a resident datum are notified that it exists,..."at col. 3 lines 2-27, col. 10 lines 55-67.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

“ A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.”

If this application currently names joint inventors, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary in considering patentability of the claims under 35 U.S.C. § 103. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,272,605 B1 issued to Le et al. (“Le”) in view of US Patent 5,251,308 issued to Steven J. Frank et al. (“Frank”)

Le renders obvious independent claim 1 by the following:

“..., flag for each storage device indicating whether a previous access,...” at col. 2 lines 60 to col. 3 lines 28;

“..., storage device having the flag indicating that no previous access attempt failed,...” at col. 6 lines 20-37, col. 8 lines 46-60, Abstract;

“accessing the data set,...” at col. 4 lines 67 to col. 5 lines 17.

Le does not explicitly teach the selection when storing the device, But Frank does teach the selection in storing device in multiprocessing systems with distributed hierarchical memory architecture at col. 3 lines 2-27, col. 10 lines 55-67.

Thus it would have been obvious to one ordinarily skilled in the art at time on the invention was made to add the “selection” from the storing device in multiprocessing systems with distributed hierarchical memory architecture of Frank to handling multiple overlapping access requests to a storage device from multiple host systems of Le in order to have means of performing selection from the storing device (col. 3 lines 2-27, col. 10 lines 55-67, Frank).

Claims 10 and 19 have same subject matter as of claim 1 and essentially rejected for the same reasons.

As per claims, 2, 11, and 20, “..., access one of the first and second storage devices,...” at col. 6 lines 1-13.

As per claim 3, 12, and 21, “...,data set on both first and second storage devices,...” at col. 4 lines 6-39.

As per claims 4, 13, 22,” ..., flag is maintained for each data set,...” at col. 2 lines 60-67.

As per claims 5, 14, 23, “accessing the data set from one of a third and fourth storage devices,...” col. 4 lines 66 to col. 5 lines 17;

“..., data set from the first storage device,...” at col. 4 lines 6 to col. 5 lines 17;

“..., data set from the second storage device,...” at col. 4 lines 6 to col. 5 lines 17.

As per claims 6, 15, and 24, “..., data set to third storage device,...” at col. 5 lines 2-42;

“..., access the data set,...” at col. 5 lines 48-61;

“..., data set from the third storage device,...” at 4 lines 6 to col. 5 lines 17.

As per claims 7, 16, and 25 same as claims arguments above and, “..., first and second storage devices,...” at col. 2 lines 60 to col. 3 lines 27.

As per claims 8, 17, and 26 same as claims arguments above and,” ..., data set in both the third and fourth storage devices,...” at col. 2 lines 60 to col. 3 lines 27.

As per claims 9, 18, and 27 same as claims arguments above and,” ..., storage devices from which to access the data set,...” at col. 4 lines 6 to col. 5 lines 17.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

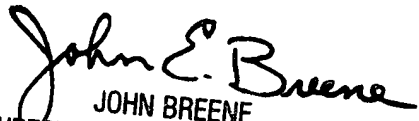
Contact Information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is (703) 605-4356. The examiner can normally be reached on Monday to Thursday from 7:30am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (703) 305-9790. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Mohammad Ali
Patent Examiner
August 5, 2002


JOHN BREENE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100